

Abstract of the Disclosure

**METHOD AND APPARATUS FOR EXHAUST GAS
RECIRCULATION COOLING USING A VORTEX
TUBE TO COOL RECIRCULATED EXHAUST GASES**

An engine includes an exhaust conduit, an intake conduit, and a vortex tube disposed between the exhaust conduit and the intake conduit. The vortex tube has an inlet in fluid communication with the exhaust conduit, a cold gas outlet in fluid communication with the intake conduit, and a hot gas outlet.